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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,959	11/19/2003	Bogdanovich Alexander	7100-038	6455
4678 7590 02/08/2007 MACCORD MASON PLLC 300 N. GREENE STREET, SUITE 1600 P. O. BOX 2974 GREENSBORO, NC 27402			EXAMINER BEFUMO, JENNA LEIGH	
			ART UNIT	PAPER NUMBER
			1771	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/08/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/716,959

Applicant(s)

ALEXANDER ET AL.

Examiner

Jenna-Leigh Befumo

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1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 8-10, 13-24, 26-29 and 31-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11, 12, 25 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 11, 2007 has been entered.

Response to Amendment

2. The Amendment submitted on January 11, 2007, has been entered. Claims 1 and 7 have been amended. Therefore, the pending claims are 1 – 40. Claims 8 – 10, 13 – 24, 26 – 29, and 31 – 40 are withdrawn from consideration as being drawn to a nonelected invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The term “z-yarn” in claim 7 is indefinite. The applicant has fails to clearly define the term “z-yarn”. Can the “z-yarn” be any of the yarns in the fabric? How does the z-yarn relate to and intersect the other yarns in the fabric? It is unclear what structure is required by the term “z-yarn”. For purposes of examination, a “z-yarn” can be any yarn in a fabric layer.

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 7, 11, 12, 25, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Jayaraman et al. (6,381,482) for the reasons of record.

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8. Claims 1, 7, 11, 12, 25, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Wheeler et al. (5,029,977) for the reasons of record.

Claim Rejections - 35 USC § 102/103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 2 – 6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jayaraman et al. for the reason of record.

11. Claims 2 – 6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wheeler et al. for the reasons of record.

Response to Arguments

12. Applicant's arguments filed January 11, 2007 have been fully considered but they are not persuasive. The applicant argues that the prior art composite fabrics fail to teach that the 3-D composite material is made from a 3-D fabric (response, page 8 – 10). However, a fabric the fabrics of the prior art are inherently three-dimensional since they comprise a measurable thickness. While the fabric might not be very thick, the fabrics do not only exist in two dimensions. Thus, the fabrics are three-dimensional. If the applicant wishes to distinguish a 3-D fabric by a specific thickness of a specific structure have interconnected layers, the applicant must provide the term 3-D fabric with a specific definition or structure. Until then any fabric which has a measurable thickness, no matter how small, is interpreted as a three-dimensional structure. While the applicant recites certain descriptions of 3-D fabrics, the claims do not recite these descriptions or limitations. Thus, the applicant's arguments based on the disclosure is not commensurate in scope with the claims because, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus, the rejection is maintained.

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13. Further, as set forth above, the applicant does not clearly define the z-yarn and how it structurally relates to the intersecting yarn system components within the 3-D fabric. Are the z-yarn components the same or different from these yarn systems? Thus, the limitation is not sufficient to overcome the prior art.

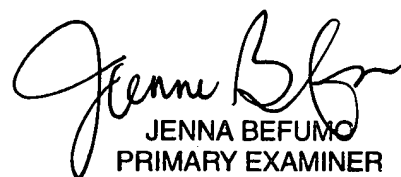
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jlb
February 2, 2007


JENNA BEFUMO
PRIMARY EXAMINER